The Evolving Culture of U.S. Higher Education in the Era of Online Learning

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Abstract

Online learning, accelerated by the COVID-19 pandemic, has significantly transformed the culture of U.S. higher education. This paper examines how the shift from in-person instruction to online modalities has affected instructor-student engagement, conversation, and community, perceived educational quality, and students' responsibility for self-directed learning at undergraduate and graduate levels. Findings suggest that the transition to online education has diminished instructor-student interactions and weakened the sense of community, contributing to lower student satisfaction and perceived declines in educational quality. Concurrently, online formats have increasingly required students to manage their learning independently, placing greater demands on their self-regulation skills. Graduate education specifically faces challenges around maintaining mentorship and meaningful academic discussions. Ultimately, while online education expands accessibility and flexibility, institutions must intentionally cultivate engagement, interaction, and support mechanisms to preserve academic rigor and community values integral to higher education.

Key Words: online education, higher education, instructor-student engagement, self-directed learning, academic community

Introduction

The rapid shift to online education has fundamentally transformed higher education culture in the United States, extending far beyond technological implementation to encompass changes in instructor-student relationships, educational quality, and learning responsibility. While distance learning was already growing in popularity over the past two decades, the COVID-19 pandemic dramatically accelerated this shift. In 2020 alone, an estimated 90% of U.S. colleges and universities moved their courses online as emergency measures (Hollister et al., 2022). Even after campuses reopened, online learning remained far more prevalent than before, for example, 61% of undergraduate students were enrolled in at least one online course in

fall 2021, compared to only 36% in 2019 (National Center for Education Statistics, 2023). Graduate students are even more likely to take classes online. This widespread adoption of online formats is not only a technological shift, but a cultural one. It has introduced new norms and challenges in how instructors and students interact, how academic communities form, and how learning is experienced. These represent permanent transformations in higher education's core values and practices.

This analysis synthesizes extensive scholarly research to examine how online education has systematically altered the culture of higher education. The evidence demonstrates that while online learning can achieve comparable academic outcomes under optimal conditions, it also entails cultural costs, including weakened human connections, reduced spontaneous intellectual discourse, and increased student isolation. These changes reflect a fundamental rethinking of what higher education means and how learning communities function in an increasingly digital world.

Methodology

This research employed a literature review to examine the cultural transformation of higher education through online learning adoption. A comprehensive search was conducted across multiple academic databases, including ERIC, Academic Search Complete, PsycINFO, JSTOR, SpringerLink, and ScienceDirect, covering publications from 2000 to 2025. Three primary search strategies were implemented: "higher education online self-directed" yielded 727 articles, "online education instructor-student relationships" produced 98 articles, and "online education decline quality" generated 751 articles. Inclusion criteria focused on peer-reviewed studies addressing higher education contexts, online learning environments, instructor-student interactions, educational quality, and self-directed learning paradigms. Studies were excluded if they focused solely on K-12 education, lacked an empirical basis, or fell outside the temporal scope. The selection process involved initial screening for relevance, full-text assessment for methodological quality, and thematic analysis identified emergent patterns.

Shift toward self-directed learning models

The transition to online education has altered the cultural expectations surrounding learning responsibility, shifting from instructor-centered to student-centered models. This shift

has changed the way courses are administered and placed an emphasis on the student to be more self-directed**.** **Students now assume greater responsibility for learning goals, resource selection, and progress evaluation,** responsibilities traditionally managed and shared with instructors and institutions (Cullen & Oppenheimer, 2024). However, this shift in higher education, which places greater educational burden on learners, has not lowered tuition costs. Eighty percent of Americans believe that online education and self-directed education should be less expensive than in-person programs (New America, 2024). Despite reduced academic support and more than half of all schools taking significant profit on online courses, most U.S. colleges and universities charge the same tuition for online and on-campus courses (Robert et al., 2024).

Increased student responsibility coupled with reduced one-to-one personal support has negatively impacted some students, particularly those from lower socioeconomic backgrounds and minority populations. Studies of online self-directed models have found that students with higher GPAs perform better in online courses than their lower-performing peers, compared to the same disparity in in-person courses (Joosten et al., 2019). Even more surprising is that despite self-directed learning model goals, there is no association between self-efficacy and students' satisfaction with their academic achievement (Anthonysamy & Singh, 2023). In fact, studies reveal that self-directed models can result in increased stress and anxiety and difficulties concentrating (Lemay et al., 2021). Feedback from students consistently highlighted that the change to online learning has resulted in less support and that academics must maintain their commitment to offering ongoing, meaningful feedback and mentorship throughout their learning (Maphalala et al., 2021).

Instructor-student relationships

One of the most influential factors on educational success is the instructor-student relationship. Specifically, instructor mind frames and whether academics provide a clear purpose to students for their learning journey (Hattie, 2023). These instructor-student dynamics have fundamentally changed with the transition from in-person lectures to online instruction. The traditional, teacher-led, lecture-based approach is being replaced by a more active and participatory model centered on student engagement in online education (Ouyang et al., 2020).

The research consistently documents significant reductions in meaningful instructor-student interactions within online learning environments, leading to worse outcomes for online learners compared to their in-person peers. A comprehensive study of 3,089 students found that **78% described online experiences as "not engaging," with 75% specifically missing face-to-face interactions with instructors and peers** (Hollister et al., 2022)**.** The substantial decline in instructor-student connection in online classes reveals a deeper issue: without real-time, face-to-face interaction, students often lose their sense of direction and purpose.

Studies also show that teaching presence is the most influential factor in online engagement, yet many instructors struggle to establish meaningful presence in digital environments. While multiple communication channels can increase interaction frequency, the quality of these interactions often remains superficial compared to traditional classroom dynamics. Students report particular difficulty with delayed feedback cycles, reduced immediacy in clarification opportunities, and limited non-verbal communication cues that are important for deep academic discourse (Richards & Thompson, 2023). These barriers impact on student motivation and academic performance, with studies showing lower completion rates and reduced satisfaction in courses lacking meaningful instructor presence.

Diminished Quality of Education

The combination of lower engagement and reduced interaction has raised concerns about the overall quality of education in online formats. While research for the U.S. Department of Education suggests online learning can achieve comparable learning outcomes to traditional instruction under optimal conditions, the reality is not so clear (Means et al., 2009). A 2022 survey found that 43% of students believe online education is worse than in-person instruction. Even more surprising, a 2021 Brookings Institution analysis reviewed numerous studies of online instruction in higher education and found that *"virtually all of these studies found that online instruction resulted in lower student performance relative to in-person instruction"* (Cellini, 2021). This suggests that completely online environments lack critical elements necessary for optimal educational quality.

Critical thinking and analytical skill development present mixed results that raise questions about educational depth in online environments. While students self-report

improvements in problem-solving abilities, faculty themselves express significant skepticism, with only 29% approving of online education's effectiveness (Trietiak, 2017). The research also reveals subject-specific variations that highlight online learning's limitations in certain educational domains. Laboratory sciences, clinical skills, and creative fields show particular challenges in online formats, indicating that the cultural shift toward digital delivery may compromise educational quality in disciplines requiring hands-on experience, mentorship, and collaborative creativity (Harper et al., 2024). This suggests that one-size-fits-all approach or direct migration of face-to-face instructional content to digital delivery systems without strategic pedagogical inadequately serves diverse academic disciplines and learning objectives. However, the most significant finding is that across the board, blended approaches consistently outperform purely online instruction for most disciplines (Means et al., 2009).

Discussion

While this research documents significant challenges in online education's impact on higher education culture, including reduced instructor-student engagement and diminished educational quality, these problems are likely not inherent limitations of the online learning model itself but rather consequences of institutional and instructor failures to adequately adapt pedagogical practices for digital environments. This is also confirmed by the findings of the U.S. Department of Education that online learning can achieve comparable learning outcomes with the right support. The documented decline in meaningful interactions and student satisfaction reflects a widespread resistance to adapting education for online delivery rather than flaws in technology-mediated learning. Many institutions and faculty members have simply transplanted traditional in-person curricula and teaching methods into online formats without recognizing that effective digital education requires fundamentally different approaches to engagement, community building, and instructional design.

The lack of meaningful instructor presence identified in this review likely stems from basic failures to utilize available technologies and pedagogical strategies to maintain or enhance instructor-student relationships. Often, faculty members do not offer virtual office hours through platforms like Zoom, failing to provide the real-time, face-to-face interaction that students consistently report missing. Additionally, the practice of recording video lectures, which provides more personalized, engaging content than simply reviewing material, remains

underutilized, with many instructors instead relying on text-based materials or textbook supplementary material that fails to establish the teaching presence crucial for student engagement. These technological solutions exist and have proven effective when implemented thoughtfully, yet widespread adoption remains limited due to institutional inertia and faculty reluctance to invest in new technological and pedagogical approaches.

Furthermore, the superficial nature of online interactions documented in this research reflects inadequate training and support for faculty transitioning to digital environments rather than inherent limitations of online communication. Effective online engagement requires different skills and strategies than traditional classroom teaching, including proactive communication, creative use of discussion forums, virtual breakout rooms, and multimedia content delivery. When institutions fail to provide comprehensive faculty development or simply mandate the use of learning management systems without pedagogical training, the result is poor-quality interactions and reduced student satisfaction, as documented in this review. The finding that blended approaches consistently outperform purely online instruction suggests that the issue is not online delivery itself, but rather the failure to integrate digital tools with effective teaching practices.

The cultural transformation toward self-directed learning models, while presenting challenges for some students, can be addressed through better institutional support structures and course design rather than abandoning online education entirely. The increased stress and anxiety reported by students in self-directed environments result from weak instructional structure and support systems rather than inherent problems with student autonomy. Institutions that have successfully implemented online education often provide robust student support services, clear learning pathways, regular check-ins, and adaptive technologies that can personalize the learning experience. The equity concerns raised regarding students from lower socioeconomic and diverse backgrounds can be mitigated through targeted support programs, digital literacy training, and course designs that provide multiple forms of engagement and feedback rather than a one size fits all approach.

These findings suggest that the documented cultural challenges in higher education are transitional problems that are resolved through sustained institutional commitment to effective, evidence based online pedagogy rather than permanent consequences of digital learning adoption. The persistence of these issues years after the initial pandemic transition shows that

many institutions have failed to move beyond emergency remote teaching to develop sophisticated online learning cultures that preserve the community, engagement, and educational quality that have historically defined effective higher education. Rather than viewing online education as inherently inferior, institutions should focus on developing the infrastructure, training, and pedagogical innovations needed to realize the potential of digital learning environments while addressing the legitimate concerns about engagement and educational quality identified in this research.

Limitations

This literature review has several limitations that should be acknowledged when interpreting the findings. First, as a narrative literature review rather than a systematic review, this study may be subject to selection bias in the identification and inclusion of sources. Publication bias may have influenced the results, as studies demonstrating negative effects of online education are more likely to be investigated than those showing neutral or positive outcomes. The focus on English-language publications and predominantly Western educational contexts, particularly the United States, limits the generalizability of findings to diverse global higher education systems with different cultural values and technological infrastructures. The rapid evolution of online learning technologies and pedagogical approaches means that earlier studies in the 2000-2025 timeframe may not accurately reflect current online education capabilities and practices. Many included studies also relied on self-reported data from students and faculty, which may be subject to response bias and may not accurately reflect objective learning outcomes or behavioral changes. Finally, the correlational nature of much of the existing research limits the ability to establish causal relationships between online education adoption and the cultural transformations observed, as multiple confounding factors including institutional resources, faculty training, and student demographics influence the outcomes attributed to modality changes.

Conclusion

The cultural transformation of higher education through online learning adoption represents one of the most significant changes in educational history, extending far beyond

technological implementation to include fundamental shifts in human relationships, learning responsibility, and institutional identity. The research demonstrates measurable reductions in instructor-student engagement quality, concerning patterns in educational outcomes, and a systematic shift toward self-directed learning models that have transformed the basic contract between institutions and students.

While online learning can achieve comparable academic outcomes under optimal conditions, the cultural costs include weakened human connections, reduced spontaneous intellectual discourse, and increased student isolation. These changes reflect a fundamental transformation of higher education from a community-based, transformative experience to an individualized, self-directed learning process that places primary responsibility on students rather than institutions.

The permanent nature of these transformations means that higher education leaders, faculty, and policymakers must carefully consider changes in policy and approaches to course content, expectations from instructors, and the quality of education. The evidence suggests that while online learning offers important benefits in terms of access and flexibility, it also represents significant losses in traditional academic culture that may have long-term implications for intellectual development, community formation, and educational equity. Future research must continue examining the transition to online education and its impact on higher education, to ensure that higher education's evolution serves its fundamental mission to help learners secure meaningful employment, excel professionally, achieve financial stability, expand knowledge, and experience personal development.

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